

Exploring the Attitudes of Instructors Toward Microsoft Teams Using the Technology Acceptance Model

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Abstract

The research and data aim to (a) examine instructors' evaluation of Microsoft Teams as reflected in their teaching at the Public Authority for Applied Education and Training (PAAET) and (b) identify significant correlation between three determinants of the Technology Acceptance Model: perceived usefulness (PU), perceived ease of use (PEOU), and attitudes towards use (ATU). The researchers used a self-report survey answered by 230 instructors from multiple departments at the College of Basic Education. Several statistical tools examined mean differences. The research found that the instructors at PAAET highly rate Microsoft Teams. Perceived usefulness directly affected attitudes towards use while perceived ease of use (PEOU) indirectly affected attitudes towards use.

Keywords: technology acceptance model (TAM), perceived usefulness, perceived ease of use, attitudes towards use

1. Introduction

The rapid progress of information technologies made E-learning an integral part of the modern education system. Given the COVID-19 pandemic, educational institutions worldwide shifted to virtual learning. Educational institutions adapted to a virtual learning environment (VLE). This transition from a traditional classroom to a virtual classroom was a struggle for many countries, especially countries that lack experience with virtual education. This adjustment proved to be difficult for Kuwait.

2. Literature Review

2.1 Education in Kuwait During the COVID-19 Pandemic

On the 26th of February 2020, two days after the first local case of COVID-19 was confirmed, the Ministry of Education (MOE) announced the closure of all schools and universities in Kuwait. It was expected that schools and universities would resume after the two-week closure. However, with the increasing number of COVID-19 cases, MOE halted the 2019-2020 academic year to set up their nation-wide E-learning program.

The Public Authority for Applied Education and Training (PAAET) launched a training campaign for students and instructors in all colleges and institutes during May 2020. Prior to the pandemic, PAAET did not use virtual learning systems. Before resuming the semester, students and employees required adequate training. The training programs taught participants how to use Microsoft Teams and Moodle. The training campaign was open to teachers, faculty, and students. Many of the participants preferred Microsoft Teams over Moodle because of its user-friendly features that will be described in the next section. According to Neubauer and Lober (2003), an E-learning environment is classified in one of the following two categories: (a) distance education: completely online using web-based technologies or (b) technology-mediated learning: on-campus teaching is complemented with web-based teaching. PAAET's E-learning environment prior to the pandemic would be classified as technology-mediated learning. Prior to the pandemic, instructors had the option of integrating learning platforms, such as Moodle, into their classroom. However, many rejected the platforms as they preferred traditional modes of learning.

After training students and instructors for three months, PAAET resumed the unfinished spring semester on August 9th, 2020. Two weeks after the conclusion of the spring semester, the summer semester commenced on October 18th, 2020, and ended on November 30th, 2020. Given the second wave of COVID-19, E-learning continued

through 2021. The 2020-2021 academic year started on December 13th, 2020, and ended on August 2nd, 2021. All throughout the academic year, we investigated instructors' perceptions of Microsoft Teams as their main platform for E-Learning.

2.2 Microsoft Teams

Microsoft Teams is "a cloud app digital hub that brings conversations, meetings, files and apps together in a single Learning Management System (LMS) (Microsoft, 2018). Microsoft Teams has many features that make virtual teaching and learning seamless. For example, Martin and Tap (2019) explained that downloading Microsoft 365 Suite provides a license that enables users to run Microsoft apps on up to five devices. The application works for Mac, PC, mobile, and Android users. This feature encourages teachers to engage with their students during class-hours and out-of-class hours because students can receive instant notifications regarding their homework, graded assignments, announcements, or responses to their messages (Phillips, 2018).

Tsai (2018) pinpointed that Microsoft Teams offers functionality through chat rooms, video conferencing, and features that replicate social media applications. Rojabi (2020) discussed other features such as file sharing, screen sharing, communicating in a chat box, changing the role of participants to attendees or presenters, recording web conferences, and downloading recordings. In addition, teachers can post assignments to individuals, small groups, or the class using the assignment function. Teachers can adjust assignments for everyone in their diverse classroom of learning styles and academic abilities (Allison & Hudson, 2020; Pretorius, 2018). All these features make Microsoft Teams a successful learning platform. All its features allow for an inclusive asynchronous and synchronous educational environment. Hoe et al. (2020) explained that synchronous learning (via live sessions) is a mode of virtual learning similar to a traditional classroom. Teachers in a synchronous class meet with students virtually through video-conferencing applications. However, in an asynchronous class, teachers facilitate learning by providing resources and allowing students to work at their own pace. Additionally, Microsoft Teams' unique features allow for elderly faculty members, faculty who prefer traditional teaching practices, to feel comfortable teaching virtually. Saranya (2020) confirms this in her study, where she investigated the efficiency of basic functions in Microsoft Teams, noting ease in discussion, assessment, and user-interface features for teachers. Results stated that elderly instructors are embracing virtual teaching through Microsoft Teams.

In this paper, the researchers are investigating the PAAET instructors' satisfaction levels with Microsoft Teams in regard to three aspects: perceived ease of use, perceived usefulness, and attitudes towards use (ATU). These three components, essential to the Technology Acceptance Model (TAM), will be discussed in the next section.

2.3 The Technology Acceptance Model (TAM)

The Technology Acceptance Model was developed by Davis (1989) who investigated use and acceptance of information systems and technologies by individual users. Alexander et al. (2018) reviewed the historical contexts that explain the acceptance and acceptability of users. They categorized TAM as a user-centered and productivity-oriented approach. The model predicts the behaviour of use and the intention of use. The model is widely studied by researchers that examined acceptance behaviour across different information systems (Suredran, 2012). The original model is modified consistently given the abundance of studies that use the TAM (Taylor & Todd, 1995; Chau, 1996; Agarwal & Prasad, 1998; Lim, 2001; Van der Heijden, 2000; Chau & Hu, 2001; Venkatesh et al., 2003; Franco & Roldan, 2005; Lee et al., 2009).

TAM has two essential constructors: perceived usefulness (PU) and perceived ease of use (PEOU). Davis (1989) defined perceived usefulness as "The degree to which a person believes that using a particular system would enhance his or her job performance." While perceived ease of use is, "The degree to which a person believes that using a particular system would be free of effort." For Davis (1989), both constructs contribute to the acceptance or rejection of information technology since the two constructs are determinants of system use. Alexander et al. (2018) explained that PU and PEOU are cognitive independent constructs. However, PU has the strongest link to use and intention of use, the last component in TAM. In other words, PU is "About 50% more influential than PEOU." These two components are influenced by external variables such as political, cultural, and social factors (Suredran, 2012). According to Davis, Bagozzi, and Warshaw (1989), "external variables provide the bridge between the internal beliefs, attitudes and intentions represented in TAM and the various individual differences, situational constraints and managerially controllable interventions impinging on behavior." Therefore, TAM ensures the impact of external factors on the behavioral intention (BI) for technology use as mediated by PEOU and PU (Venkatesh & Davis, 2000).

Suredran (2012) defined two other components of TAM: attitudes towards use (ATU) and behavioral intention to use (BI); attitudes towards use are concerned with the user's desirability of employing a particular information system application while behavioural intention measures the likelihood of a person employing the application

(Suredran, 2012).

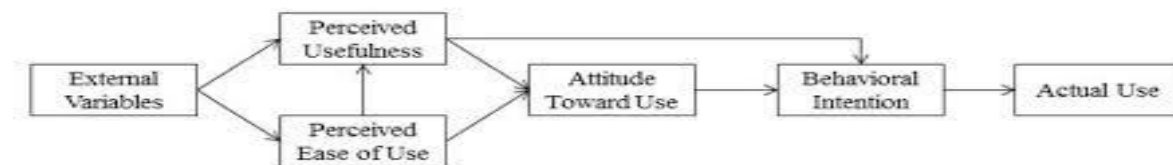


Figure 1. Technology Acceptance Model (TAM) (Davis, 1989)

Boateng et al. (2016) investigated the determinants of E-learning according to TAM and found that PU and PEOU affect the attitude of adoption thereby affecting the adoption of E-learning systems. Many researchers have applied the TAM in E-learning studies and found that perceived ease of use and perceived usefulness have significant effects on an individual's behavioral intention to use an E-learning system (Liu, Liao, & Pratt, 2009; Ong, Lai, & Wang, 2004; Sheng, Jue, & Weiwei, 2008). Furthermore, Motaghian, Hassanzadeh, and Moghadam (2013) surveyed 115 university instructors to examine the theoretical model. They concluded that perceived usefulness, perceived ease of use, and system quality increase the instructor's intention to use web-based learning systems. However, perceived usefulness was the most important factor affecting their intentions and actual use of the system (Ma, Andersson, & Streith, 2005). Their research concluded that teachers' perceived usefulness and perceived ease of use were two determinants of their technology use. However, Al-Adwan, Al-Adwan, and Swedley (2013) investigated students' acceptance of E-learning using TAM in Jordanian universities and found that PEOU significantly influenced PU and ATU. Essentially, students who found E-learning to be an easier mode of learning noted the usefulness of the system.

TAM is widely utilized across research to measure users' satisfaction levels on many information technology applications because it assesses the users' tendency to accept technology. Prioritizing the satisfaction level of instructors ensures the use of information technology applications (Cheok & Wong, 2015; Hoe et al., 2020). In addition, Motaghian et al. (2013) explained that although instructors and students are the users of web-based learning systems, instructors play the main role in determining the success or failure of the systems. This finding is supported by Wang and Wang's (2009) theory that when instructors conduct their teaching through a web-based learning system, students are obligated to use it. Many studies find that an instructor's control of technology and frequent communication impact learning outcomes (Arbaugh, 2000; Khan, 2005; Leidner & Jarvenpaa, 1993). Studies show that the successful implementation of educational technologies depends largely on the attitudes and acceptance of educators (Sanchez-Franco, Martínez-López, & Martín-Velicia, 2009; Yuen & Ma, 2008). Thus, in this study, investigating instructors' satisfaction levels towards Microsoft Teams, specifically through the constructs of TAM determines the continuity of the platform at PAAET. This will affect other educational institutions in Kuwait that want to adopt a successful E-learning platform.

3. Significance of the Study

This study examines Microsoft Teams' strengths and weaknesses from the perspectives of teaching faculty at the College of Basic Education, PAAET. This determines whether to continue using Microsoft Teams or switch to another learning platform. Research confirms the significant relationship between successful E-learning engagement and positive attitudes towards it (Huang & Liaw, 2005). Yildirim (2000) explains that instructors only use technology that will fulfill their teaching needs and student learning needs. Otherwise, they will discontinue using it. One-third of the instructors at the College of Basic Education participated in this survey. Therefore, the findings of the study are generalized.

4. Methodology

The researchers conducted a quantitative study to evaluate Microsoft Teams with 230 instructors participating in the survey. The researchers used a self-report survey methodology with statistical tools to examine mean differences, such as, Pearson correlation, multiple regression, Cronbach's Alpha, split - half coefficient means, and ST Deviation. The study addressed the following research questions.

1) How do the instructors at the College of Basic Education evaluate Microsoft Teams for their teaching needs according to the following dimensions?

A. Quality of live classes

B. Quality of synchronous learning

C. Procedure for evaluating student performance

D. The general experience of E-learning

2) Are there significant relationships among the four main components of TAM: attitudes towards use (ATU), external variables (EV), perceived ease of use (PEOU), and perceived usefulness (PU)?

3) Do attitudes towards use (ATU) affect perceived usefulness (PU) or perceived ease of use (PEOU)?

4.1 Participants

The study sample consisted of 230 instructors from the College of Basic Education. Of the 230 instructors, 17% are assistant lecturers, 28% are assistant professors, 45% are associate professors, and 10% are professors. Approximately 45% of the sample strongly agreed and 38% agreed that they received sufficient training on the use of Microsoft Teams. Therefore, 83% of the sample reported positively, claiming they received adequate training. Most instructors aimed for 2-3 training sessions.

Table 1. The Sample demographic

		N	%
Department	Special Needs Education	16	7.0
	Science	12	5.2
	Home Economics	4	1.7
	Management & Fundamentals of Education	12	5.2
	Physical Education	4	1.7
	Art Education	8	3.5
	Musical Education	16	7.0
	Interior Design	4	1.7
	Information Technology	8	3.5
	Islamic Studies	8	3.5
	Social Studies	16	7.0
	Mathematics	4	1.7
	Psychology	36	15.7
	Library and Information science	4	1.7
	Law	4	1.7
	English and French	4	1.7
	Arabic Language	20	8.7
	Curriculum and Methods of Teaching	36	15.7
	Electrical Engineering	14	6.1
Degree	Professor	24	10.4
	Associate Professor	104	45.2
	Assistant Professor	64	27.8
	Assistant Lecturer	38	16.5
The amount of training courses I took in preparation for using Microsoft Teams	1	44	19.1
	2	68	29.6
	3	76	33.0
	4	8	3.5
	5	16	7.0
	6	4	1.7
	7	8	3.5
	More than 7	6	2.6
Total		230	100.0

4.2 Instrument and Procedures

The original survey was written in Arabic and later translated to English. To ensure the validity of this instrument, a panel of professors from the College of Basic Education and Kuwait University reviewed the instruments and endorsed the content validity of the items. In addition, the researchers conducted a pilot study prior to the instrument's application and modified the questionnaire according to the reviewers' and instructors' feedback. The survey is scored using the five-point Likert scale. The researchers sent the questionnaire as a Microsoft Forms web link, distributed to each department in the College of Basic Education. Pearson correlation was used to calculate the relationship between the items with subdomains.

Table 2. Pearson correlation between items and dimensions degrees

Quality of Live Classes		Quality of Synchronous Learning		Student Performance		Experience with Grading		General Experience of E-Learning	
N	Correlation	N	Correlation	N	Correlation	N	Correlation	N	Correlation
1	.616**	1	.311**	1	.544**	1	.857**	1	.554**
2	.523**	2	.238**	2	.692**	2	.849**	2	.459**
3	.548**	3	.268**	3	.596**	3	.882**	3	.629**
4	.548**	4	.367**	4	.492**	4	.849**	4	.709**
5	.453**	5	.526**	5	.323**			5	.611**
6	.564**	6	.652**	6	.551**				
7	.612**	7	.554**	7	.585**				
8	.481**	8	.714**	8	.536**				
9	.384**	9	.543**	9	.642**				
10	.507**	10	.495**	10	.386**				
11	.278**	11	.671**						
12	.386**	12	.619**						
13	.448**								
14	.268**								
15	.569**								
16	.669**								

Note. **Significant at 0.01 level

Correlation coefficients between the paragraphs and the overall score for each axe of the questionnaire were positive and statistically significant at a level of significance (0.01), ranging between (0.238 - 0.882). This indicates the availability of internal correlations and the validity of the questionnaire's paragraphs and subdomains.

5. Results

Our findings suggest that the survey was a reliable instrument. The internal consistency reliability (ICR) was calculated using Cronbach's Alpha and split-half coefficient.

Table 3. Reliability scores

	Cronbach's Alpha	Split-Half Coefficient
Quality of Live Classes	.758	.827
Quality of Synchronous Learning	.737	.863
Student Performance	.718	.704
Experience with Grades	.880	.933
General Experience of E-Learning	.530	.672
Total Questionnaire	.892	.924

As seen in Table 3, the Cronbach Alpha coefficient value stands at 0.892 and ranged between 0.53 and 0.88. The stability value was found at 0.924 and ranged between 0.67 and 0.93. This indicates the reliability and stability of the dimensions in the survey.

Q1: How do the instructors at the College of Basic Education evaluate Microsoft Teams for their teaching needs according to the four dimensions?

The level of response according to the arithmetic mean:

- 1 – 1.8 → very low
- 1.81 – 2.6 → low
- 2.61 – 3.40 → average
- 3.41 – 4.20 → high
- 4.21 – 5 → very high

Table 4. The means and STD of quality of live classes dimension

N	Items	Mean	Std. Deviation	Level	Rank
1	A large number of students attended live classes	4.23	.771	Very high	9
2	The procedure of taking attendance is easy	4.23	.954	Very high	10
3	Spontaneously calling students to answer questions and discuss course content controls attendance	4.19	.781	High	11
4	Students participate during discussions in many ways, including raising their hands and unmuting their microphones to speak	4.39	.683	Very high	4
5	The process of recording lectures and saving them online is easy	4.39	.696	Very high	5
6	Instructors can schedule lectures on Microsoft Teams for the entire semester	4.54	.651	Very high	1
7	The instructor can share the screen with students to display educational content	4.41	.876	Very high	3
8	The instructor can ask students to share their screens	4.15	.927	High	12
9	The instructor can easily mute all microphones when noises get distracting during lectures	4.43	.794	Very high	2
10	The instructor can easily turn off a student's camera in the case of students accidentally turning their cameras on	4.24	.842	Very high	7
11	Many students attend live classes without paying attention.	3.71	.969	High	13
12	The instructor's internet connection repeatedly disconnects during live classes.	2.87	1.011	Average	15
13	The students' internet connection repeatedly disconnects during live classes	3.17	.924	Average	14
14	The instructor finds difficulty in controlling student behavior during live classes	2.37	1.100	Low	16
15	Live classes are a good alternative to traditional classes during the COVID-19 pandemic.	4.24	.902	Very high	8
16	The instructor will continue using live classes even after the COVID-19 pandemic. For example, during unexpected weather conditions	4.27	.938	Very high	6
Dimension Total Means		3.99	.405	High	

Table 4 demonstrates instructors' evaluation of the quality of live classes. Their assessment of live classes stands at a high level, with an average of 3.99. The survey questionnaire "Instructors can schedule lectures on Microsoft Teams for the entire semester" scored the highest approval. The survey questionnaire, "The instructor finds difficulty in controlling students' behavior during live classes" scored the lowest approval. The finding is favorable as it demonstrates the staff's extreme satisfaction with the learning platform.

Table 5. The means and STD of quality of synchronous learning

n	Items	Mean	Std. Deviation	Level	Rank
1	Instructors can post instructions and announcements in an exemplary way to attract the attention of the students	4.44	.663	Very high	1
2	Students interact on posts in a satisfactory way	4.03	.881	High	2
3	Students do not read announcements and ask questions repeatedly on private chats to the instructor	3.30	1.067	Average	6
4	Announcements are not visible because students frequently post questions on the dashboard	3.16	.949	Average	8
5	A private channel was added for student questions, so the instructor's important announcements remain visible for students in the general channel	3.70	1.198	High	4
6	The instructor placed a virtual chat room for students	3.43	1.138	High	5
7	The instructor used the Insights app to keep up with students' activities	3.28	1.251	Average	7
8	Students were distributed into small groups through channels in order to easily answer their questions	3.16	1.182	Average	9
9	The instructor provided students with many links and files that contain educational content through posts and files	3.87	.958	High	3
10	The application, OneNote, was used to provide written content to students	2.65	1.066	Average	10
11	The application, MindMeister, was used to create maps and diagrams	2.53	1.043	Low	11
	Dimension Total Means	3.35	.529	Average	

The values in Table 5 indicate the instructors' evaluation of the quality of synchronous learning. The instructors evaluated Microsoft Team's posting features averagely, with a value of 3.35. The survey questionnaire "Instructions and announcements can be posted to the students in an exemplary way to attract the attention of the students" scored the highest with an average of 4.44. Meanwhile, the questionnaires "Students were distributed into small groups through channels in order to easily answer their questions" and "The application, MindMeister, was used to create maps and diagrams" scored the lowest as they involved integration of third-party apps and other features.

Table 6. The means and STD of student performance

n	Items	Mean	Std. Deviation	Level	rank
1	The instructor used assignments and homework to evaluate students	4.36	.795	Very high	1
2	The instructor assigned projects to students to prevent cheating and copying	3.91	1.070	High	6
3	The instructor used PowerPoint Presentations to evaluate students	4.06	1.076	High	5
4	The instructor gave short quizzes to students after every lecture	3.38	1.020	Average	8
5	The instructor asked oral questions to students every lecture	4.17	.918	High	2
6	The instructor used timed tests to prevent cheating and the exchange of answers among students	3.50	1.350	High	7
7	The instructor created tests that depend on critical thinking and reasoning skills	4.10	1.032	High	3
8	The instructor used open-book tests to evaluate students	3.09	1.332	Average	9
9	The instructor used Microsoft Forms as a testing application for students	4.10	1.121	High	4
10	The instructor used Moodle as a testing platform for students	2.22	1.151	Low	10
	Dimension Total Means	3.69	.584	High	

As seen in Table 6, the instructors highly rate the mechanisms of evaluating students with a value of 3.69. Instructors at the College of Basic Education regularly use several evaluation methods, such as, projects, presentations, and short quizzes with critical thinking to prevent cheating, copying, and the exchange of answers.

Table 7. The means and STD of experience with grades

n	Items	Mean	Std. Deviation	Level	rank
1	Students can easily and quickly submit homework and assignments	4.21	.930	Very high	4
2	The instructor can easily evaluate students and provide grades	4.26	.887	Very high	3
3	The instructor can easily grade tests and assign grades	4.35	.804	Very high	1
4	The instructor can easily post scores and distribute grades	4.27	.797	Very high	2
	Dimension Total Means	4.27	.734	Very high	

Table 7 demonstrates the instructors' evaluation of experience with grading, rating the mechanism very highly with a value of 4.27. The "assignments and grades" feature in Microsoft Teams allows for instructors to assign tasks and projects to students as well as provide a place to submit a student's grade and assignment feedback. These features facilitate a smooth grading process.

Table 8. The means and STD of the general experience of e-learning

n	Items	Mean	Std. Deviation	Level	rank
1	Microsoft Teams is a safe environment for learning without cyber breaches	3.92	.827	High	2
2	The process of E-learning was good, with no problems to be reported	3.85	.918	High	3
3	E-learning ensures the survival of education during rough and unexpected changes	4.35	.782	Very high	1
4	E-learning is tiring and requires a lot of energy	3.32	1.251	Average	5
5	The instructor is disturbed from the abundance of questions and messages from students that need to be answered	3.22	1.231	Average	4
	Dimension Total Means	3.73	.602	High	

Table 8 indicates that the instructors highly rate their general experience of E-learning, with a value of 3.73. They strongly praise Microsoft Teams' ability to endure during unexpected changes. Issues with the platform are minimal at the College of Basic Education, PAAET.

Table 9. The means and STD of the dimension of questionnaire

Dimensions	Mean	Std. Deviation	Level	Rank
Quality of Live Classes	3.99	.405	High	2
Quality of Synchronous Learning	3.35	.529	Average	5
Student Performance	3.69	.584	High	4
Experience with Grades	4.27	.734	Very high	1
General Experience with E-Learning	3.73	.602	High	3
Total Questionnaire	3.81	.431	High	

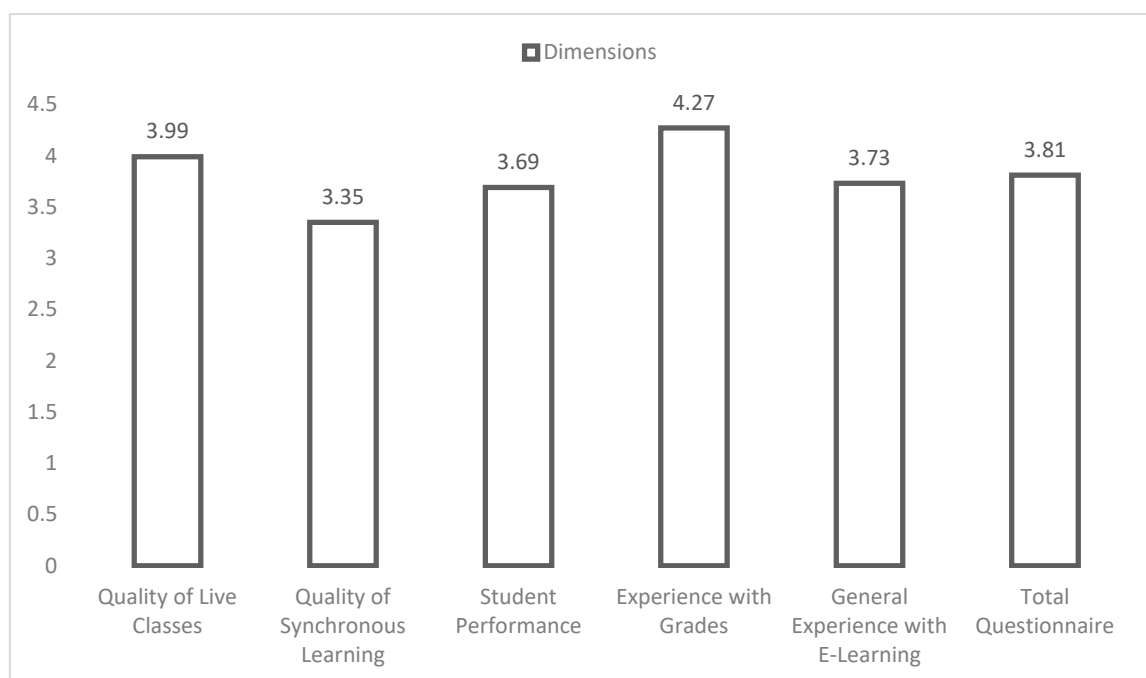


Figure 2. Bar chart of dimensions

The values in Table 9 indicate that the instructors highly evaluate the features found in Microsoft Teams, with a value of 3.81. Microsoft Teams has several highlighting properties for the instructors at the College of Basic Education, PAAET:

- 1) Ease in posting assignments, scores, and grades.
- 2) High quality of live classes with full control during broadcast.
- 3) High quality of synchronous learning.

Q2. Are there significant relationships among the four main components of TAM: attitudes towards use (ATU), external variables (EV), perceived ease of use (PEOU), and perceived usefulness (PU)?

In order to investigate the relationships among the factors of TAM and their effects on each other, the researchers divided the tool to the four main components:

- 1) External variables (EV)
- 2) Perceived Ease of Use (PEOU)
- 3) Perceived Usefulness (PU)
- 4) Attitudes Towards Using (ATU)

Table 10. The correlation of PU and PEOU on other TAM factors

	External Variables (EV)	Perceived Ease of Use (PEOU)	Perceived Usefulness (PU)
External variables (EV)			
Perceived Ease of use (PEOU)	0.224**		
Perceived Usefulness (PU)	0.389**	0.755**	

Note. **Correlation is significant at the 0.01 level.

Pearson correlation was used to describe the strength of relationship between the factors of TAM.

As can be seen from Table 10:

- There is a significant positive correlation between external variables and perceived ease of use ($r = 0.224$)
- There is a significant positive correlation between external variables and usefulness ($r = 0.389$)

- There is a significant positive correlation between perceived ease of use and usefulness ($r = 0.755$)

Q3. Do attitudes towards use (ATU) affect perceived usefulness (PU) or perceived ease of use (PEOU)?

In order to measure the effect of perceived ease of use (PEOU) and perceived usefulness (PU) on attitude towards using Microsoft Teams (ATU), multiple regressions was used. The independent variables are perceived ease of use (PEOU) and perceived usefulness (PU) while attitude towards using Microsoft Teams (ATU) is a dependent variable.

Table 11. The effects of (PU) and (PEOU) on (ATU)

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	.920	.293		3.139	.002
Perceived Ease of Use (PEOU)	.207	.105	.164	1.966	.051
Perceived Usefulness (PU)	.580	.111	.435	5.206	.001

a. Dependent Variable: Attitude Towards Using Microsoft Teams (ATU); $F = 53.95^{**}$; $R^2 = 0.32$.

As can be seen from Table 11:

- The effect size refers to the dependent variables affecting the variance of attitude by (32%).
- Only perceived usefulness (PU) predicts the attitude towards using Microsoft Teams (ATU) significantly.
- The perceived ease of use (PEOU) did not predict the attitude towards using Microsoft Teams (ATU) significantly.

6. Discussion

The first aim of this study is to investigate the strengths and weaknesses of Microsoft Teams according to the instructors at the College of Basic Education. The results revealed that participants highly evaluate Microsoft Teams, rating the platform between average and very high for all four dimensions. The first dimension, quality of live classes, was highly rated with an average of (3.99). This indicates a strong quality of broadcasted live classes. This finding is supported by researchers that highlighted excellent features such as file sharing, screen sharing, communicating in the chat box, changing the role of participants, and recording meetings (Tsai, 2018; Rojabi, 2020). The second dimension, quality of synchronous learning, was evaluated at an average level with a value of 3.35. The survey item, "Announcements can be posted in an exemplary way to attract the attention of the students" had the highest value of 4.44. This result supports Phillips' (2018) finding that synchronous learning through Microsoft Teams encourages students to engage with their teachers during class hours and out-of-class hours as they can receive instant notifications on their mobile devices regarding homework, assignments, or class updates.

The third dimension, evaluating student performance, was evaluated with a value of 3.69. The instructors use several methods, such as, projects, presentations, and short quizzes with critical thinking questions to challenge students. This finding is supported by researchers who found that teachers can post assignments to individuals, small groups, or the class using the assignment function. They can adjust assignments for everyone in their diverse classroom of learning styles and academic abilities (Allison & Hudson, 2020; Pretorius, 2018). The fourth dimension, experience with grades, was evaluated at a very high level, with a value of 4.27. It was the highest dimension among all four. This is likely because of the many students enrolled at the College of Basic Education, with a maximum capacity of 100 students per class. A large class causes grading to be overwhelming for instructors at the College of Basic Education. An allocated space for students to submit work and instructors to provide grades provides a seamless grading experience as opposed to grading on third-party applications. The last dimension, evaluating the general experience of E-learning, was rated at a high level with a value of 3.73. Instructors claim that Microsoft Teams provides a safe learning environment without cyber breaches, ensuring that learning survives.

The second research question investigates the relationship between three components of TAM: external variables (EV), perceived ease of use (PEOU), and perceived usefulness (PU). The results confirmed Davis' (1989) original theory as there was a positive significant relationship between external variables (EV) and perceived ease of use (PEOU), and between external variables (EV) and perceived usefulness (PU). Suredran (2012) confirmed the strong effect that external variables play on PEOU and PU. Davis' (1989) TAM demonstrated the strong relationship between the two constructs. Venkatesh and Davis expressed this relationship by stating, "The easier

the system is to use the more useful it can be.” Al-Adwan et al. (2013) also found that PEOU has a significant influence on PU.

Findings revealed that only perceived usefulness (PU) significantly predicts instructors’ attitudes towards using Microsoft Teams (ATU) while the perceived ease of use (PEOU) does not predict their attitudes. Davis (1989) compared the relationships between PU and PEOU, concluding that PU was strongly correlated with technology acceptance. With PU, positive attitudes are reported, which in turn, achieves technology acceptance. This finding does not minimize the role of PU in the stages of technology acceptance given Venkatesh and Davis’ (2000) finding, “The easier the system is to use the more useful it can be.” This explains why no correlation exists between perceived ease of use (PEOU) and attitudes towards use (ATU). Nevertheless, Venkatesh and Davis (2000) explain that when educators enhance the ease of use (EOU), students perform better, thereby increasing their perception of usefulness which later reflect on their attitudes towards use (ATU). This result conflicts with Al-Adwan et al. (2013) because they found that PEOU has significant influence on attitudes towards using E-learning applications in Jordan. Their finding revealed that PU has no influence on the participants’ attitudes towards using E-learning applications. The researchers explained that their participants’ acceptance of the E-learning system relied on the application’s simplicity rather than how useful it is for their learning. Hence, participants’ perceived ease of use of their E-learning system affected their attitudes towards using it. In our study, PU predicted the attitudes of the instructors while PEOU did not show any correlation with their attitudes. However, Davis (1989) explained that although users might perceive learning systems to be useful, they may still find it difficult to use and thereby quit using it. Furthermore, Priyanto, Sofyan, and Surjono (2017) investigated the determinants of E-learning implementation of vocational schools in the Yogyakarta Special Region. They found that the direct determinants on perceived usefulness (PU) were perceived ease of use (PEOU) and the social environment. However, the perceived ease of use was the strongest determinant compared to the social environment. Plus, Kashada, Ghaydi, and Mohammed (2020) examined the impact of perceived usefulness (PU) and perceived ease of use (PEOU) on the successful adoption of information systems (IS) in developing countries. They found that PU directly affected the adoption of the information system while PEOU indirectly affected the adoption of the information system.

7. Conclusion

E-learning, while challenging, has proven to be a rewarding experience at the College of Basic Education. Many countries had to modify their educational systems by switching to virtual learning. The concern worth investigating a year into E-learning is how instructors feel about the platform, given that success or failure of any learning system stems from their evaluation. We discussed that Microsoft Teams has three highlighting properties (a) ease in posting assignments and distributing grades, (b) high quality of live classes with full control during broadcasts, and (c) high quality of synchronous learning. As for determinants of accepting Microsoft Teams, we found that perceived usefulness (PU) significantly determines instructors’ attitudes towards using (ATU) Microsoft Teams. The perceived ease of use (PEOU) did not determine their attitudes. However, the study confirms the positive significant correlation between PU and PEOU. This is because PU directly affects PEOU and PEOU directly affects ATU, each factor increases the other in their respective orders. The study was generalized given that the data was obtained from one college of the five colleges at PAAET. However, more data can be obtained with the remaining departments through semi-structured interviews. This study can branch out to instructors in all departments. Future studies can examine other determinants that affect the adoption of any learning system and how to keep the learning system afloat.

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